

Application No.: 10/657,550
Amendment Dated May 2, 2008
Reply to Office Action of December 5, 2007

Amendments to the Claims:

1. (Currently Amended) A formulation for the treatment of fungus-induced rhinosinusitis in a mammal, said formulation comprising an aqueous suspension comprising:
 - (a) about 1 to about 700 mcg of suspended solid steroid anti-inflammatory particles, wherein the steroid anti-inflammatory is fluticasone or a pharmaceutically acceptable derivative salt, ester, enol ether, enol ester, acid, base, solvate or hydrate thereof, said suspended solid steroid anti-inflammatory having the following particle size distribution profile:
 - i. about 10% of the steroid anti-inflammatory particles have a particle size of less than 0.90 microns;
 - ii. about 25% of the steroid anti-inflammatory particles have a particle size of less than 1.6 microns;
 - iii. about 50% of the steroid anti-inflammatory particles have a particle size of less than 3.2 microns;
 - iv. about 75% of the steroid anti-inflammatory particles have a particle size of less than 6.2 microns; and
 - v. about 90% of the steroid anti-inflammatory particles have a particle size of less than 10.0 microns;
- wherein said formulation is suitable for administration to the nasal-paranasal mucosa.
2. (Cancelled)
3. (Currently Amended) The formulation of claims 1 or 2, further comprising about 0.5 to about 150 mg of an antifungal agent.
4. (Original) The formulation of claim 3, wherein the antifungal agent is amphotericin β .
5. (Original) The formulation of claim 3, wherein said formulation comprises about 7.5 to about 15 mg of amphotericin β .

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6. (Original) The formulation of claim 3, wherein said formulation comprises about 10 mg of amphotericin β .

7-9. (Cancelled)

10. (Original) The formulation of claim 1, comprising about 25 to about 400 mcg of said steroidal anti-inflammatory.

11. (Original) The formulation of claim 1, comprising about 75 to about 300 mcg of said steroidal anti-inflammatory.

12. (Original) The formulation of claim 1, comprising about 200 mcg of said steroidal anti-inflammatory.

13. (Previously Presented) The formulation of claim 10, wherein the suspended solid steroidal anti-inflammatory particles have the following particle size distribution profile:

- i. about 10% or less of the steroidal anti-inflammatory particles have a particle size of less than 0.40 microns;
- ii. about 25% or less of the steroidal anti-inflammatory particles have a particle size of less than 0.75 microns;
- iii. about 50% or less of the steroidal anti-inflammatory particles have a particle size of less than 1.50 microns;
- iv. about 75% or less of the steroidal anti-inflammatory particles have a particle size of less than 3.0 microns; and,
- v. about 90% or less of the steroidal anti-inflammatory particles have a particle size of less than 5.2 microns.

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14. (Previously Presented) The formulation of claim 1, wherein the suspended solid steroid anti-inflammatory particles are fluticasone propionate having the following particle size distribution profile:

- i. about 10% of the steroid anti-inflammatory particles have a particle size of less than 0.70 microns;
- ii. about 25% of the steroid anti-inflammatory particles have a particle size of less than 1.30 microns;
- iii. about 50% of the steroid anti-inflammatory particles have a particle size of less than 2.5 microns;
- iv. about 75% of the steroid anti-inflammatory particles have a particle size of less than 4.0 microns;
- v. about 90% of the steroid particles have a particle size of less than 6.0 microns; and,
- vi. greater than 90% or about 100% of the steroid anti-inflammatory particles have a particle size of less than 10 microns.

15. (Previously Presented) The formulation of claim 1, wherein the suspended solid steroid anti-inflammatory particles are fluticasone propionate having the following particle size distribution profile:

- i. about 10% of the steroid anti-inflammatory particles have a particle size less than 0.50 microns;
- ii. about 25% of the steroid anti-inflammatory particles have a particle size less than 0.90 microns;
- iii. about 50% of the steroid anti-inflammatory particles have a particle size less than 1.7 microns;
- iv. about 75% of the steroid anti-inflammatory particles have a particle size less than 3.5 microns; and,
- v. about 90% of the steroid anti-inflammatory particles have a particle size less than 5.5 microns.

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16-21. (Cancelled)

22. (Original) The formulation of claim 1, wherein the formulation is sterile.

23. (Original) The formulation of claim 1, wherein the formulation further comprises a preservative.

24. (Original) The formulation of claim 23, wherein the preservative is benzalkonium chloride.

25. (Original) The formulation of claim 1, wherein the formulation is stable.

26. (Cancelled)

27. (Previously Presented) The formulation of claim 1, wherein the formulation is in a metered-dose spray pump bottle.

28. (Previously Presented) The formulation of claim 1, further comprising about 0.01% to about 90% by weight on a dried weight basis of one or more of the following compounds:

- (a) microcrystalline cellulose;
- (b) carboxymethyl cellulose sodium;
- (c) dextrose;
- (d) benzalkonium chloride;
- (e) polysorbate 80; and
- (g) phenylethyl alcohol.

29. (Original) The formulation of claim 1, further comprising an antibiotic.

30. (Previously Presented) The formulation of claim 29, wherein the antibiotic is one or more selected from the group consisting of amikacin, azithromycin, aztreonan, cefazolin, cefepine, cefonicid, cefaperazone, cefotaxime, cefotetan, cefoxitin, ceftazidime, ceftizoxime, ceftriaxone, cefuroxime, cephapirin, ciprofloxacin, clindamycin, doxycycline, erythromycin lactobionate, gentamicin, kanamycin, linezolid, mezlocillin, mupirocin, nafcillin, netilmicin, neomycin, oxacillin, paromomycin, piperacillin, streptomycin, ticarcillin, tobramycin, and vancomycin.

31-34. (Cancelled)

35. (Previously Presented) A formulation for the treatment of fungus-induced rhinosinusitis, said formulation comprising an aqueous suspension comprising:

- (a) about 7.5 to about 15 mg of amphotericin β .
- (b) about 75 to about 300 mcg of suspended solid steroidal anti-inflammatory fluticasone propionate particles having the following particle size distribution profile:
 - ii. about 10% of the steroidal anti-inflammatory particles have a particle size of less than 0.70 microns;
 - iii. about 25% of the steroidal anti-inflammatory particles have a particle size of less than 1.30 microns;
 - iv. about 50% of the steroidal anti-inflammatory particles have a particle size of less than 2.5 microns;
 - v. about 75% of the steroidal anti-inflammatory particles have a particle size of less than 4.0 microns;
 - vi. about 90% of the steroid particles have a particle size of less than 6.0 microns; and,
 - vii. greater than 90% or about 100% of the steroidal anti-inflammatory particles have a particle size of less than 10 microns.

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wherein said formulation is suitable for administration to the nasal-paranasal mucosa.

36-70. (Cancelled) .

71. (Currently Amended) The formulation of claim 1, further comprising at least at least one complexing agent selected from the group consisting of ethylenediaminetetraacetic acid, citric acid, nitrilotriacetic acid, salts thereof, and sodium edentate and salts thereof.

72. (Previously Presented) The formulation of claim 71, wherein the at least one complexing is sodium edentate.

73. (Currently Amended) The formulation of claim 35, further comprising at least at least one complexing agent selected from the group consisting of ethylenediaminetetraacetic acid, citric acid, nitrilotriacetic acid, salts thereof, and sodium edentate and salts thereof.

74. (Previously Presented) The formulation of claim 73, wherein the at least one complexing is sodium edentate.

75. (New) A formulation for the treatment of fungus-induced rhinosinusitis, said formulation comprising an aqueous suspension comprising:

- (a) a therapeutic amount of an antiviral agent selected from the group consisting essentially of Acyclovir, Famciclovir, Valacyclovir, edoxudine, ganciclovir, foscarnet, cidovir (vistide), Vstrasert and Formivirsen
- (b) about 7.5 to about 15 mg of amphotericin β ;
- (c) about 10 to about 100 mg of doxycycline
- (d) about 75 to about 300 mcg of suspended solid steroidal anti-inflammatory fluticasone propionate particles having the following particle size distribution profile:

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- ii. about 10% of the steroidal anti-inflammatory particles have a particle size of less than 0.70 microns;
- iii. about 25% of the steroidal anti-inflammatory particles have a particle size of less than 1.30 microns;
- iv. about 50% of the steroidal anti-inflammatory particles have a particle size of less than 2.5 microns;
- v. about 75% of the steroidal anti-inflammatory particles have a particle size of less than 4.0 microns;
- vi. about 90% of the steroid particles have a particle size of less than 6.0 microns; and,
- vii. greater than 90% or about 100% of the steroidal anti-inflammatory particles have a particle size of less than 10 microns.

wherein said formulation is suitable for administration to the nasal-paranasal mucosa.

76. (New) The formulation of claim 75, wherein the antiviral agent comprises edoxudine.